U.S. Patent Application No. 10/721,695 Reply to Final Office Action of June 14, 2006

Date: August 14, 2006

#### Remarks/Arguments

The Rejection of Claims 2, 3, 5, 6, 9, 10 and 16-18 Under 35 U.S.C. §102(b)

The Examiner rejected Claims 2, 3, 5, 6, 9, 10 and 16-18 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,049,420 (Kraft). Applicants respectfully traverse the rejection and request reconsideration for the following reasons.

## Claims 2, 3, 5, 6, 9, 10 and 18

Kraft fails to teach or disclose an upper stage that moves in a first direction in response to translational movement of a rod in the first direction, and a slide mount that moves in a second direction in response to translational movement of the rod in the second direction

In the Office Action, a coaxial drive shown in Kraft is equated to be the rod recited in Claim 2. In col. 2, lines 47-48 and col. 3, lines 45-48 describe Kraft describes a coaxial drive 4 which comprises two coaxial drive elements, preferably pinions, bevel wheels, and friction wheels that operate independently from one another. Kraft is dependent on the coaxial drive system 4 having multiple gear elements operating together to actuate X-movement for carriage 3, and Y-movement for stage plate 2. Kraft fails to teach or disclose a rod that moves an upper stage in a first direction in response to translational movement of the rod in the first direction. Rotational movement of knobs 22 and 6 on coaxial drive 4 cause movement of the stage plate and carriage, but coaxial drive 4 is not capable of translational movement, let alone translational movement in the same direction that the stage plate or carriage move. As the knobs 22 and 6 are rotated coaxial drive 4 (and the knobs) remain in the same position rotating on axis 19, as stage plate 2 and carriage 3 move in a first and second direction, respectively. The rod recited in Claim 2 is structurally different than the coaxial drive taught and suggested by Kraft since it uses translational movement to cause an identical translation movement in the slide mount and upper stage.

Even if carriage 3 is analogous to the slide mount recited in Claim 2 of the instant application, carriage 3 is not arranged to move in a second direction orthogonal to a first direction, in response to a <u>translational movement</u> of said coaxial drive 4 in the second direction. This is because coaxial drive 4 cannot move linearly (translational movement) it can only rotate

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about axis 19 since it is attached to a fixed stage plate 1. (See col. 2, lines 47-50). Movement of stage plate 2 in the Y-direction is only caused by **rotation** of knurled knob 6 (and thereby **rotation** of coaxial drive 4), not <u>translation movement</u> of the coaxial drive 4 in an X or Y direction. (See col. 2, lines 50-55 & col. 3, lines 50-55). Movement of carriage 3 in the X-direction is caused by rotation of knurled knob 22. (See col. 3, lines 54-60 & col. 4, lines 15-30). Coaxial drive 4 only causes movement by rotation of the knurled knobs 6 and 22 about axis of rotation 19, **not** by translational movement of coaxial drive 4 in the same direction as the stage elements are moved. Therefore, two elements of Claim 2 are not disclosed by Kraft, namely 1) a rod/upper stage arrangement where movement in a first direction of the upper stage occurs due to **translational** movement of the rod in a first direction and 2) rod/slide mount arrangement where slide mount movement in a second direction, orthogonal to the first direction, occurs in response to **translational** movement of the rod in the second direction. Therefore, Kraft fails to teach all the limitations of Claim2 and it is novel.

# Kraft fails to teach or disclose a rod directly attached to a slide mount

Assuming *arguendo* coaxial drive 4 is a rod, which it is not, coaxial drive 4 is not directly attached to carriage 3, the element that the Examiner has pinpointed as the slide mount equivalent from Claim 2. In col. 2, lines 47-48 Kraft explicitly states that "coxial drive 4 is fastened to the fixed stage plate 1." Kraft clearly describes the coaxial drive 4 being fastened to a fixed stage that is immovable. Fixed stage plate 1 is immovable because it is "fixedly screwed to the stage fork (not shown) of a microscope or is fastened thereto in some other manner." (See col. 2, lines 36-38). Claim 2 explicitly recites that the rod is directly attached to the slide mount, which is a movable member that enables sliding movement. *Kraft* does not disclose a coaxial drive 4 mounted to a slide mount, which is a movable component, but discloses coaxial drive 4 connected to fixed stage 1.

In the last Office action, it was explained that coaxial drive 4 is described as being functionally engaged with stage plate 2 and carriage 3 and "functional engagement" has broadly interpreted to mean attached. However, a functional engagement can in no way be interpreted to

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be a <u>direct attachment</u> as is currently recited in Claim 2. Therefore, *Kraft* fails to teach a rod directly attached to a slide mount.

### Kraft fails to teach, suggest or disclose a rod that is releasably attached to the slide mount

Claim 2 recites that a rod is attached to the slide mount by a releasable attachment means, i.e., it can be removed. In the Office Action of June 14, 2006, the Examiner states in the §103 rejection on page 4 that Kraft fails to teach the releasable attachment of a rod, and that Leitz is needed to teach a releasable attachment means. This statement not only contradicts what is stated in the §102 rejection using Kraft on page 2 of the Office action, it is an admission by the Examiner that Kraft can't be used to teach a releasable attachment of the rod to the slide mount.

Additionally, fastening device 21 of Kraft has been interpreted to be a releasable attachment means that is arranged to attach the rod to the slide mount. However, releasable is an adjective that qualifies the attachment of the rod to the slide mount as a connection that is designed to release the rod from the slide mount. This feature in Claim 2 enables, and is instrumental, for the rod to be attached for either left-handed use or right-handed use. The attachment of coaxial drive 4 disclosed by Kraft is not releasable. The only description offered in Kraft of the connection of coaxial drive 4 to fixed stage 1 is found in col. 2, lines 46-50, where it states that "coaxial drive 4 is fastened to the fixed stage plate 1 in a fastening device 21 (e.g., clamps)." Nothing in Kraft describes the fastening means 21 as releasable. Figure 2 further supports the interpretation of Kraft's fastening device as a fixed connection that is not releasable. Fastening device 21 is shown as a rectangular piece that would hold coaxial drive 4 securely and permanently to fixed stage 1. Thus, Kraft is not a teaching reference for the releasable attachment of a rod to a slide mount. Hence, a releasable attachment means for a rod, is not disclosed by Kraft.

For all the reasons stated above, Claim 2 is novel with respect to Kraft. Claims 3, 5, 6, 9, 10 and 18, dependent from Claim 2, enjoy the same distinction from Kraft. Applicants respectfully request the rejection of Claims 2, 3, 5, 6, 9, 10 and 18 be withdrawn.

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Claim 16

For many of the reasons that Claim 2 is novel, Claim 16 is also novel. Specifically, Kraft

fails to teach or disclose a rounded shaft or rod, a rounded shaft or rod directly attached to a slide

mount, a releasable attachment means for the rod or rounded shaft, and an upper stage and slide

mount that move as a result of translational movement of a rod or rounded shaft in the same

direction. Please refer to the arguments above arguing the novelty of Claim 2.

Claim 17

Claim 17 now recites a joystick detachably secured directly to the slide mount at more

than one location of the slide mount, limitations not taught by Kraft. Kraft only discloses a

coaxial drive 4 fixedly attached to fixed stage 1 and there is no teaching that the attachment of

the coaxial drive 4 is detachable or directly attached to a slide mount. (See col. 2, lines 45-50).

Thus, Kraft is missing essential elements of Applicants' invention, i.e., a joystick detachably

secured directly to the slide mount. Therefore, Claim 17 is novel with respect to Kraft.

Applicants courteously request that the rejection be withdrawn.

Claim 18

Claim 18 recites a slide mount guide fixedly attached to the slide mount, where said

releasable attachment means is arranged to attach said rod to the slide mount guide. Kraft has no

structure that can be analogized to a slide mount guide, certainly not one that is attached to the

rod. The Examiner has indicated that carriage 3 is equivalent to the slide mount recited in Claim

18. Assuming arguendo that carriage 3 is equivalent to the slide mount in Claim 2 and 18, which

it is not, there is no structure that can even remotely be construed to be a slide mount guide

directly attached to the slide mount, and a slide mount guide directly attached to a rod. (See Fig.

1 and Fig. 2).

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The Rejection of Claims 3, 4, 8 and 11 Under 35 U.S.C. §103(a)

Claims 3, 4, 8 and 11 were rejected Under 35 U.S.C. §103(a) as being unpatentable over Kraft in view of Ergolux B 0 1-Ersatztelliste (Leitz). Applicants respectfully traverse this

rejection.

Applicants have shown that Kraft fails to teach all the elements of Claim 2. Furthermore, Leitz does not cure the defects of Kraft regarding the elements of Claim 2 that are untaught by Kraft. Specifically, Kraft and Leitz do not teach or suggest: 1) an upper stage that moves in a first direction in response to translational movement of a rod in the first direction, and a slide mount that moves in a second direction in response to translational movement of the rod in the second direction; 2) a rod directly attached to a slide mount; 3) a rod that is releasably attached to the slide mount. (See arguments *supra*).

Claims 3, 4, 8 and 11 are dependent on Claim 2. Therefore, Claims 3, 4, 8 and 11 have all the limitations of Claim 2. Since Leitz also does not teach or suggest the limitations cited above from Claim 2, the combination of Kraft and Leitz fails to teach or suggest all the limitations of Claims 3, 4, 8 and 11.

Furthermore, there is no motivation to combine Kraft with Leitz, or to modify those references to create the subject invention. Kraft discloses a microscope with a gear system that is utilized to move the stage, while Leitz discloses a microscope that uses manual manipulation to move the stage and does not require or disclose a gear system. One skilled in the art would not be motivated to combine these different stage systems in order to arrive at the stage movement system claimed in the instant application because of the vast difference in the structures and elements needed to enable the systems to function. A gear-driven stage and a manual stage are both intended for different applications and thus have little similarity outside being installed on microscopes. Due to the different applications of Kraft and Leitz it is apparent that impermissible hindsight reconstruction was the motivation for the combination and reliance on Applicants' own disclosure was a major factor in motivating the combination of the references.

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In view of the arguments above, Claim 2 is patentable over Kraft in view of Leitz. Claims 3, 4, 8 and 11, dependent from Claim 2, also are patentable over Kraft in view of Leitz.

Applicants courteously request that the rejection be withdrawn.

## The Rejection of Claims 7, 12-14 and 16 Under 35 U.S.C. 103(a)

Claims 7, 12-14 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft in view of U.S. Patent Application No. 2003/0169492 (Nishida et al.). Applicants respectfully traverse this rejection.

Applicants have shown that Kraft fails to teach all the elements of Claim 2. Furthermore, Nishida et al. does not cure the defects of Kraft regarding the elements of Claim 2. Specifically, Kraft and Nishida et al. do not teach or suggest: 1) an upper stage that moves in a first direction in response to translational movement of a rod in the first direction, and a slide mount that moves in a second direction in response to translational movement of the rod in the second direction; 2) a rod directly attached to a slide mount; 3) a rod that is releasably attached to the slide mount. (See arguments *supra*). Therefore, the combination of Kraft and Nishida et al. fails to teach or suggest all the limitations of Claim 2 and that claim is patentable. Claims 7 and 12-14 are dependent on Claim 2, and therefore are also patentable over the combination of Kraft and Nishida et al.

Furthermore, there is no motivation to combine Kraft with Nishida et al., or to modify the references to create the subject invention. Kraft discloses a microscope with a gear system implemented to move the stage, while Nishida et al. discloses a microscope that uses a pulley system that uses wire ropes to move the stage and does not require or disclose a gear system. One of ordinary skill in the art would not combine Kraft and Nishida et al. because they are from disparate fields. Due to the different applications of Kraft and Nishida et al. it is apparent that impermissible hindsight reconstruction was the motivation for the combination and reliance on Applicants' own disclosure was a major factor in motivating the combination of the references.

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In view of the arguments above, Claim 2 is patentable over Kraft in view of Nishida et al.

Claims 7 and 12-14, dependent from Claim 2, also are patentable over Kraft in view of Nishida

et al.

Claim 16

Applicants have shown that Kraft fails to teach all the elements of Claim 16. Moreover,

Nishida et al. does not cure the defects of Kraft regarding the elements of Claim 16. In particular,

Nishida et al. and Kraft do not teach 1) an upper stage that moves in a first direction in response

to translational movement of a shaft in the first direction, and a slide mount that moves in a

second direction in response to translational movement of the shaft in the second direction; and

2) a shaft that is releasably attached to the slide mount. (See arguments supra). Therefore, the

combination of Kraft and Nishida et al. fails to teach or suggest all the limitations of Claim 16,

and a prima facie case of obviousness has not been proven.

Furthermore, there is no motivation to combine Kraft with Nishida et al., or to modify the

references to create the subject invention. Kraft discloses a microscope with a gear system

implemented to move the stage, while Nishida et al. discloses a microscope that uses a pulley

system that uses wire ropes to move the stage and does not require or disclose a gear system.

One of ordinary skill in the art would not combine Kraft and Nishida et al. because they are from

disparate fields. Due to the different applications of Kraft and Nishida et al. it is apparent that

impermissible hindsight reconstruction was the motivation for the combination and reliance on

Applicants' own disclosure was a major factor in motivating the combination of the references.

In view of the arguments above, Claim 16 is patentable and Applicants courteously

request that the rejection be withdrawn.

The Rejection of Claim 15 under 35 U.S.C. §103(a)

Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kraft in view

of U.S. Patent No. 5,907,157 (Yoshioka et al.). Applicants respectfully traverse this rejection.

Applicants have shown that Kraft fails to teach all the elements of Claim 2. In addition,

Yoshioka et al. does not cure the defects of Kraft regarding the elements of Claim 2. In

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particular, Kraft and Yoshioka et al. does not teach 1) an upper stage that moves in a first

direction in response to translational movement of a rod in the first direction, and a slide mount

that moves in a second direction in response to translational movement of the rod in the second

direction; 2) a rod directly attached to a slide mount; and 3) a rod that is releasably attached to

the slide mount. (See arguments supra). Therefore, the combination of Kraft and Yoshioka et al.

fails to teach or suggest all the limitations of Claim 15, and a prima facie case of obviousness has

not been proven.

Furthermore, there is no motivation to combine Kraft with Yoshioka et al., or to modify

the references to create the subject invention. It is apparent that impermissible hindsight

reconstruction was the motivation for the combination and reliance on Applicants' own

disclosure was a major factor in motivating the combination of the references.

In view of the arguments above, Claim 2 is patentable over Kraft in view of Yoshioka et

al. Claim 15, dependent from Claim 2, also is patentable over Kraft in view of Yoshioka et al.

Applicants courteously request that the rejection be removed.

Conclusion

For all the reasons outlined above, Applicants respectfully submit that the claims are in

condition for allowance, which action is courteously requested.

Respectfully submitted,

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